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The influence of firm predispositions on interfirm relationship formation in business markets

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Abstract

The central premise of this paper is that firm level characteristics or behavioral traits, referred to as predispositions, influence how the firm behaves and interacts in its interfirm relationships (IFRs). This augments traditional approaches that focus on the intra-relationship perspective and/or on environmental influences on the relationship. Firm predispositions of strategic intent and relational proclivity are expected to individually, and in combination, increase the extent of connectedness between partners in interfirm relationships. In turn, through connectedness, they affect relationship effectiveness in terms of reciprocity, information exchange, and cooperation. Results indicated that the predispositions increased connectedness, but combinational effects were not present. Connectedness strongly influenced interfirm relationship effectiveness, indicating substantial mediational effects for connectedness.

Keywords: Predispositions, Connectedness, Reciprocity, Interfirm, Business markets

1. Introduction

To a significant extent, researchers have studied interfirm relationships (IFRs) through factors within the relationship itself. For example, a large share of IFR research addresses the patterns of interactions between the partners in terms of psychosocial states, or in terms of how the partners behave and respond to each other, i.e., behavioral processes (e.g., Morgan and Hunt, 1994 and Ganesan, 1994). In addition, IFR research includes investigations of the structure or governance of the relationship (e.g., Heide, 1994). Thus, whether focused on behavioral processes or relationship structure, investigators have tended to emphasize the situation as

it exists and develops within the IFR. While extremely fruitful, a focused study of the relationship situation potentially atomizes the IFR from other proximate and important influences. One important factor that would enrich our understanding of IFRs is the influence of firm predispositions on IFR formation and management.

Predispositions refer to characteristics or “traits” that the firm exhibits at the collective level. These pre-existing “traits” influence how the firm conducts itself and behaves in a variety of arenas. As such, we suggest a firm’s predispositions greatly influence its interactions with IFR partners and its behavior in making and managing IFRs. For example, some firms are more strategically aggressive and ambitious than others. Likewise,

some firms are generally more prone to make certain types of IFRs (e.g., close partner-style relationships) than others (cf., Frazier, 1999). Together and in combination, predispositions, firm level characteristics or behavioral “traits,” affect the firm’s IFRs in important ways.

In this study, we attempt to isolate important firm level predispositions and evaluate their influence on the firm’s making and management of IFRs. The predispositions we investigate include the firm’s strategic aggressiveness in terms of Hamel and Prahalad’s (1989) strategic intent and the firm’s general proclivity to trust and engage in close IFRs, which we refer to as relational proclivity. We expect these predispositions to intensify the firm’s boundary spanning activities with other firms. Further, we expect that when they combine, the predispositions will result in an even greater intensification of boundary spanning activities than they do individually. In addition, the intensified boundary spanning activities, which we describe in terms of the degree of connectedness in the firm’s interface with other firms, should result in more effectiveness in individual IFRs. We conceptualize IFR effectiveness as the presence of the norm of reciprocity, the quality of information exchange, and the degree of cooperative behavior between the firms.

In the sections hereafter, we discuss the theoretical background and framework. We define and develop the specific pre-dispositional factors we have isolated as important influences on IFR making and management. Following this, we offer hypotheses concerning how the predispositions influence the extent of connectedness in IFR boundary spanning and the subsequent implications of that influence in terms of IFR effectiveness. In the next sections, we describe the empirical study that tests the hypothesized relationships and report the results. The final sections of the paper include a discussion of the findings and implications.

2. Theoretical framework

At a broad abstract level, the political economies framework depicts IFRs in terms of two major factors, the external and the internal political economy (Stern and Reve, 1980). The external political economy involves the effects of environmental factors

on IFRs. A perusal of the literature suggests that researchers have provided significant understanding of how environmental factors such as turbulence and technology influence the IFR (e.g., Heide and John, 1990 and Noordewier et al., 1990). Seemingly more complex, the internal political economy is comprised of a variety of structural and process phenomena such as power, influence, trust, commitment, dependence, governance structures, and decision-making structures, for example. Together the factors making up the internal polity and economy of the IFR can be thought of as describing and explaining the *situation* within the relationship. Thus far, extant literature has developed a rich picture of the situation within the IFR in terms of partner interactions and responses in the IFR, conflict, commitment, trust, etc. (e.g., Morgan and Hunt, 1994). In addition, we have learned much about the situation within the IFR in terms of structural factors such as dependence and governance (e.g., Heide, 1994).

Even a cursory review shows that examinations of the IFR situation and environmental influences has yielded substantial understanding of IFRs (e.g., Dwyer and Tanner, 1999). However, we suggest that this picture may not be complete. Several authors have implicitly and explicitly noted a tendency in research to atomize the IFR from important influences (e.g., Anderson et al., 1994 and Ritter, 1999). Here we suggest that one important influence not sufficiently considered in literature is firm level “traits” or behavioral tendencies of the IFR partners, that is, their predispositions.

All relationship participants have some predispositions or “baggage” that they bring to the relationship and that influence the way they behave and conduct their interactions with others. Our central premise is that this is also true for interfirm relationships. Characteristics or behavioral “traits” of the firm that exist apart from the relationship greatly influence how the firm behaves and interacts in IFRs. That is, the development and management of an IFR depends on the situation within the IFR, however, it also depends to a great extent on firm level characteristics or predispositions. To more fully understand and effectively manage IFRs, we need to enlarge our perspective to include firm level predispositions.

To understand these predispositions, it is useful to juxtapose them with individual predispositions. We

caution that firm and individual predispositions are distinct. Obviously, as we explain below, firm level predispositions derive from phenomena at the collective level. However, descriptions of individual level predispositions are useful as an analogue.

It is easy to understand that at the individual level, our predispositions, our tendency to trust or our proclivity for intimacy, for example, affect how we make and manage our personal relationships (e.g., Goto, 1996). As with individuals, at the firm level, predispositions are not explicitly observable characteristics (Weiss and Adler, 1984). They are unobservable states or “traits” in the firm’s cognitive system. Predispositions are inferred over time and imputed through informed observation and reporting (Weiss and Adler, 1984). Thus, firm predispositions do not include factors such as size, nor do they include contextual concepts such as firm reputation. Predispositions are stable behavioral tendencies that result in certain consistencies in the firm’s actions across an array of circumstances (Staw et al., 1986). Predispositions mean that the firm displays or exhibits the stamp of some inherent behavioral “traits” across various situations, or in our case, in the IFRs in which it participates Pervin, 1989 and Sitkin and Weingart, 1995. Although, firm predispositions are relatively stable, persistent, and enduring, they also simultaneously accumulate and evolve over time (Sitkin and Weingart, 1995). In a sense, firm predispositions are dynamically enduring. This is due to learning and adaptation by firms.

Though not explicitly addressed as predispositions, the notion of firm level characteristics affecting marketing activities has occasionally appeared in the literature. For example, firm innovativeness and firm technological orientation have been investigated as an influencing in new product introduction (e.g., Gatignon and Xuereb, 1997), and surgency, i.e., strategic aggressiveness of the firm has been cast as a factor in competitive signaling (e.g., Clark and Montgomery, 1998). Interestingly, one study investigated firm technological innovativeness as an influence on how the firm assembled and managed its portfolio of IFRs (Dutta and Weiss, 1997). However, this study did not investigate how a firm’s technological innovativeness influenced its activities, behaviors, and management practices within the IFR. To our knowledge this paper is among the first to explicitly consider

that these disparate firm level behavioral tendencies occasionally seen in the literature, taken together actually crystallize into a systematic and substantive set of influences on the firm’s marketing activities.

2.1. The role of firm predispositions on IFRs

As noted, some researchers have studied variables that are essentially firm level predispositions. However, to our knowledge, marketing scholars have not overtly nor explicitly considered firm level predispositions as influences on IFR making and management. To test our central premise that firm predispositions influence IFR management, we isolated two that we expect to influence firm behavior in IFRs, strategic aggressiveness and relational proclivity.

Given the growing concern for strategic perspectives on IFR making and management, strategic aggressiveness merits investigation as a pre-dispositional influence on IFRs. An increasing number of scholars have suggested IFRs as a means to gain strategic advantage (e.g., Achrol, 1991, Dyer and Singh, 1998, Jap, 1999 and Johnson, 1999). If, as these authors suggest, IFRs play important strategic roles in the firm, the firm’s predisposition with regard to strategic aggressiveness is a logical starting point for understanding pre-dispositional influences. Likewise, the notion of relationalism and the merits of close partner-style relationships in IFRs continues to gain momentum in the literature (e.g., Geyskens et al., 1996, Geyskens et al., 1998 and Jap and Ganesan, 2000). Some authors have suggested that the applications of relationalism may have been overextended and it may not be appropriate in all cases (Frazier, 1999). This suggests that the firm’s proclivity toward these types of close partner-style relationships warrants investigation as a pre-dispositional factor. Below we review and discuss the two predispositions that we expect to influence IFRs.

2.1.1. Strategic intent

We view the extent of the firm’s strategic aggressiveness in terms of strategic intent (Hamel and Prahalad, 1989). As defined by Hamel and Prahalad (1989), strategic intent involves the extent to which firms are oriented toward winning competitively. It suggests that

the firm works constantly and energetically toward growth and market dominance in all possible ways. Strategic intent gages the firm's strategic aggressiveness and ambition. It suggests that firms will deliberately and explicitly muster all possible resources in pursuit of their objectives. The stronger the firm's strategic intent, the more avenues it will find and use to gain competitive advantage. Strategic intent implies that the firm will view all resources through the lens of strategic ambition. Wherever possible, resources are garnered and considered as strategic assets to be deployed as effectively as possible in achieving competitive advantage.

2.1.2. Relational proclivity

Relational proclivity refers to the strength of the general tendency held by a firm to seek out, engage in, and make close partner-style IFRs as opposed to conducting interfirm interaction at arm's-length. Despite the potential benefits that closer partner-style relationships apparently bring, some firms seem unwilling to build such relationships, preferring to keep transactions at arm's-length. This suggests that though for different reasons, firms, like individuals, vary in their proclivity for close relationships (cf., Larson, 1992 and Rotter, 1967). Relational proclivity exists independent of any specific partner or any prior information specific to any potential partner. It could be rooted in a number of factors, although the tendency toward trusting would likely play a substantial role (Rotter, 1967). Strong proclivity, for example, can stem from beliefs that partnering will enhance outcomes, or general preferences for joint projects. Strong proclivity indicates that a philosophy of partnership exists. Weaker relational proclivity, where firms tend to avoid close and deep association with IFR partners, can be rooted in fears of exploitation, being cheated, or other forms of opportunism, or simply a lack of comfort with sharing decision-making domains.

2.2. Model development and hypotheses

We expect that the firm predispositions of strategic intent and relational proclivity will influence the IFR

directly through boundary spanning structures and activities. In interfirm research, the characteristics of boundary spanning activities between firms have been described in several ways. For example, Mohr and colleagues (e.g., Mohr et al., 1996) have examined communication patterns. Dwyer and colleagues (e.g., Dwyer and Oh, 1987) have evaluated boundary spanning in terms of decision structure characteristics such as formalization or centralization. Here, we depart slightly from these perspectives and conceptualize the firm's approach to boundary spanning in general through the notion of connectedness. Fig. 1 depicts the effects of the predispositions on connectedness. In addition, the figure shows the mediated effects of the predispositions on relationship outcomes, which we discuss in the following sections.

2.2.1. Connectedness

In the marketing literature, researchers have applied the concept of connectedness in several contexts. From a network analysis viewpoint, theorists (e.g., Anderson et al., 1994, Ritter, 1999 and Ritter, 2000; also see Gemünden et al., 1996) draw on the idea that the performance and effectiveness of one IFR are influenced by other IFRs which the participants in the initial relationship may have. From this perspective, theory development pivots on this idea of connectedness or more specifically the interconnectedness between the firm's various IFRs. In contrast, from an intrafirm perspective, connectedness has been used to describe the relationship between functional areas within the firm. For example, R and D and marketing departments can vary in their connectedness, the strength of their relationship and extent to which they communicate and coordinate. Connectedness has been used to investigate antecedents of the marketing concept (Jaworski and Kohli, 1993) and in inter-functional research Maltz and Kohli, 1996 and Song and Parry, 1993.

Clearly, the notion of connectedness is useful at network and within firm levels of analysis. We suggest that it is also useful to consider connectedness in terms of the firm's boundary spanning. Similar to connectedness between the functional areas in a firm, IFRs themselves can vary according to the strength or extent of connectedness between the participating firms.

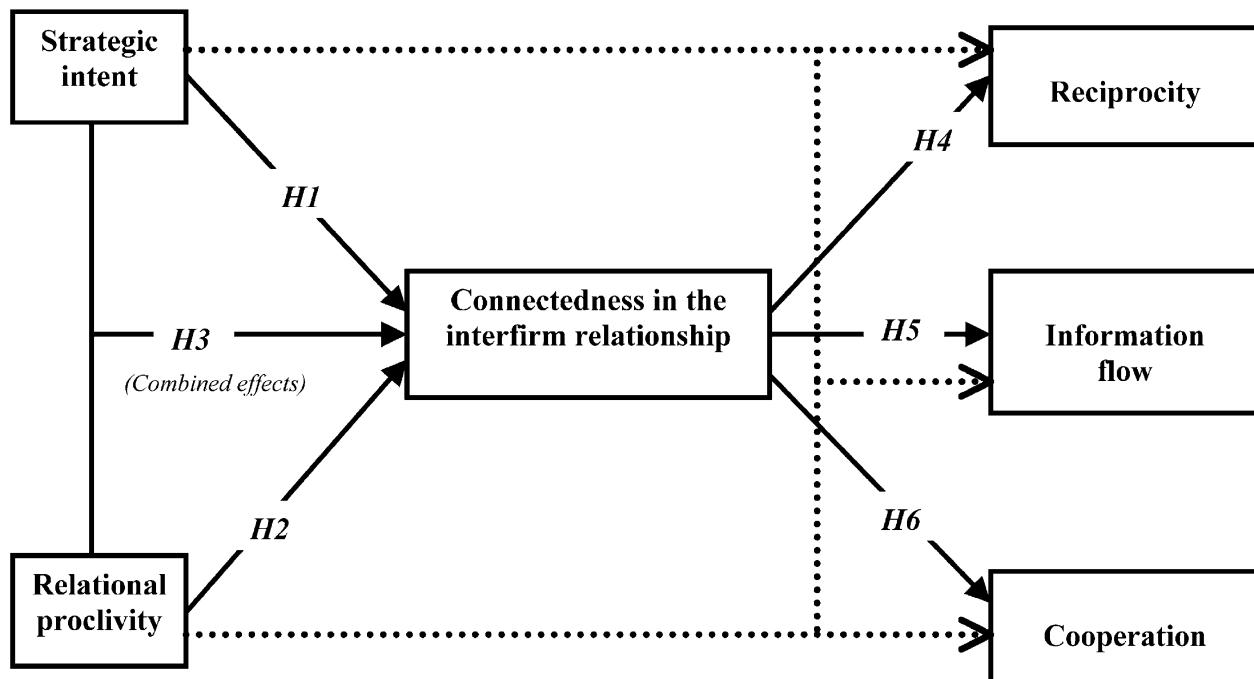


Fig. 1. Effects of firm predispositions on interfirm relationships. Dotted line indicates non-hypothesized direct effects.

Frequent interaction among multiple boundary spanners and across multiple managerial levels characterizes high levels of connectedness between firms in an IFR; however, it involves much more. High levels of connectedness can be visualized as thick interfirm boundary spanning structures with strong healthy communication patterns. Importantly, along with frequent and intense communication, connectedness entails high quality and open communication. It suggests easy, ready, and substantive communication in boundary spanning between firms. It also includes the extent to which the interface between IFRs spans multiple levels of management. High levels of connectedness means extensive, high quality communication via multiple means between *multiple managers at multiple points and multiple levels of the firm's managerial hierarchy*. At the other end of the spectrum, thin boundary spanning structures are those where interfirm interaction is limited to few individuals, is relatively infrequent, and rarely crosses managerial levels in the firms. Thin boundary spanning structures signify low levels of connectedness where communication patterns are weak and often confined to fewer or even a single level of managers in the firms.

2.2.2. The effects of firm predispositions on connectedness

We expect the firm's strategic ambition in terms of its strategic intent to influence the extent of connectedness in its IFRs. When a firm has strong strategic intent, it searches out and musters all possible resources that can be used in achieving strategic objectives and sustainable competitive advantage. Further, the firm then focuses those resources on its objectives and the attainment of competitive advantage (Hamel and Prahalad, 1989). Thus, firms with strong strategic intent are more likely to be enlightened with regard to the potential role of IFRs as a resource to be developed and used in achieving their objectives (Dyer and Singh, 1998). While strategic intent does not guarantee that the firm will automatically see IFRs as a viable avenue for achieving strategic objectives, recent research suggests that firms do see their IFRs as assets to be strategically leveraged (Jap, 1999 and Johnson, 1999).

The strategically aggressive firm's view of the IFR as an asset or resource to be used in achieving competitive advantage plays out in several ways for the interaction between IFR partners. First, the IFR offers a potentially

expanded base of resources and capabilities for the firm (Dyer and Singh, 1998). However, to access a partner's resource base, thereby realizing a potential expansion in resources, the firm must develop the right type of interface with the partner. The possibility of tapping into an expanded resource base motivates the strategically aggressive firm to connect strongly with its partners in boundary spanning activities.

In addition to the possibility of tapping into an expanded resource base, the strategically ambitious firm should show greater levels of connectedness in the interface with its IFR partners to develop inimitability in its IFRs. Arm's-length relationships may be efficient and effective in some respects. But they do not offer the same potential for sustainable competitive advantage that close partner-style IFRs do, as they can be more readily duplicated and thus lose their ability to generate competitive advantage Dyer and Singh, 1998 and Jap, 1999. To create and preserve the inimitability in IFRs that makes them valuable competitively (Ford and McDowell, 1999), firms must make the effort and investment in boundary spanning activities (Jap, 1999). The firm will work to develop and cultivate its IFRs. A major means is likely through thicker boundary spanning, i.e., greater connectedness with IFR partners. Thus, we posit the following:

H1. The stronger the firm's strategic intent, the greater the level of connectedness with its IFR partners.

Strong relational proclivity suggests that firms are positively inclined toward IFRs. Such firms are more open to trusting partners (cf., Rotter, 1967) and building IFRs in general (Larson, 1992). Relational proclivity means that IFRs are viewed as beneficial and advantageous. It suggests that firms have little problem with sharing tasks, decision-making, and projects with IFR partners (Larson, 1992). In addition to other advantages, the firm often sees gains in prestige from association with certain firms in IFRs Anderson et al., 1994 and Larson, 1991. Relational proclivity means that

though risks may be present, the firm assumes the risk. The firm sees partnering of a certain nature as a desirable alternative to other forms.

These relationally predisposed firms will be more inclined to commit managerial resources in terms of time and effort to IFRs. With relational proclivity, IFRs that begin with a central or primary exchange may often enlarge into diverse aspects, with an array of advantages and benefits (Larson, 1992). This process is aided by frequent and extensive managerial interaction with IFR partners at multiple levels in the firm, that is, high levels of connectedness. As interdependence expands (Geyskens et al., 1996) and the IFR develops into a "package," the partner firms become tightly integrated through extensive communication and thick boundary spanning Larson, 1991 and Larson, 1992. Because firms that have strong relational proclivity are prone toward enlarged and interdependent IFRs, and thick boundary spanning is often seen as aiding this enlargement process, we propose the following:

H2. The greater the firm's relational proclivity, the greater the level of connectedness in its IFRs.

We expect the pre-dispositional factors of strategic intent and relational proclivity individually will result in stronger connectedness between IFR partners. Moreover, we expect these predispositions to have a combined interactive effect on the level of connectedness between firms in IFRs. When firms actively seek competitive dominance and view IFRs as a vehicle by which this is accomplished, either because of access to potentially expanded resource bases or because of their inimitability, and when this strategic aggressiveness couples with a preference for IFRs that are "enlarged" with expanded interdependence, the firm should show an even greater willingness to commit investments and effort in boundary spanning to build IFRs. We note that the joint effects of the pre-dispositional factors on connectedness in the IFR involves an interaction between the predispositions. Importantly, however, we expect interaction effects to be positive only.¹ That is,

1. Essentially, we are positing an ordinal interaction, where the slopes of the regression lines involved differ significantly, but the two lines do not cross in empirical reality (Pedhazur, 1982, p. 353). This is from the conceptual perspective only. Of course, the fact that non-parallel lines will eventually intersect is an indisputable mathematical property. The important distinction here is that they will not do so in empirical reality.

we expect pre-dispositional factors to combine and influence connectedness in a stronger way than they do individually, suggesting:

H3. The interaction of high levels of relational proclivity with high levels of strategic intent will result in a greater level of connectedness in IFRs than either relational proclivity or strategic intent individually.

2.2.3. *Interfirm relationship effectiveness*

Relationship effectiveness can be viewed in terms of objective financial or economic data such as contributions or increases in revenues. However, researchers have examined IFR effectiveness in terms of factors involving psychosocial states and behaviors in the relationship that are expected to generate benefits, and ultimately financial rewards (e.g., Anderson and Weitz, 1992 and Morgan and Hunt, 1994). These rewards may involve transaction cost efficiencies. Several investigations are premised, to some extent, on the notion that close partner-style relationships are more desirable and efficient because they involve lower governance costs. Thus, the firm enjoys a bottom line outcome of reduced transaction costs. Importantly, some studies also have demonstrated that these effectiveness variables relate to economic performance variables such as growth (e.g., Ambler et al., 1999).

We drew on the models of organizational effectiveness introduced to the IFR literature by Kumar et al. (1992) to isolate several dimensions of relationship effectiveness. To investigate IFR effectiveness, we included reciprocity, information exchange quality, and cooperation between the partners. We selected these factors, because taken together, they relate to functional imperatives of goal attainment, pattern maintenance, integration, and adaptation cited by Kumar et al. (1992). While these three factors can in no way be considered an exhaustive treatment of IFR effectiveness, they do provide a reasonably broad-based perspective. Further, they directly involve relationship processes and activities as opposed to socio-psychological states or conditions that, although important, have influences more removed and sometimes more difficult to observe.

In general, we expect the level of connectedness a firm exhibits in its boundary spanning activities to influence individual IFR effectiveness in a positive fashion. While a greater level of connectedness (i.e., more interaction across multiple points of managerial hierarchy in the firm) does not automatically result in any certain type of behavior in the IFR, it does set the stage and provide the opportunity for developing IFRs into whatever form will best serve the partner firms' interests. Below, we develop each of these relationships in detail.

2.2.4. *Reciprocity*

Goldner (1960) noted that reciprocity is a key postulate in social life. It is a critical intervening variable through which patterns of social behavior are established thereby yielding stability in social systems (Goldner, 1960, p. 161). Reciprocity suggests that the contingency of partner response sets behavioral patterns in motion within the relationship. *A*'s positive behavior toward *B* is driven by and in response to *B*'s positive behavior toward *A*. The order and stability of the relationship is founded on the mutually contingent exchange of benefits between relationship participants. Reciprocity ensures long run gratification for partners.

While, to our knowledge, reciprocity has not been treated explicitly in the IFR literature, it has been proposed as potentially important by a number of theorists as it can provide insights into many socio-psychological components in the IFR Ford and McDowell, 1999 and Heide and Miner, 1992. We have some empirical evidence that reciprocity comes into play with certain specific dimensions of IFRs Anderson and Weitz, 1992, Johnson et al., 1993 and Kumar et al., 1998. Theory, coupled with this empirical evidence suggests that positive behaviors by a firm in an IFR will generate positive behaviors in return by the IFR partner.

We expect that the extent of connectedness exhibited in boundary spanning will influence the development of reciprocity in the IFR for several reasons. The frequent, high quality interactions involving multiple levels of management that characterizes strong connectedness in boundary spanning increases the likelihood that reciprocity will develop first and foremost because it provides opportunity for reciprocal behaviors to occur. Thick boundary spanning does not necessarily en-

sure that reciprocity will develop in a positive direction, or that it will even happen at all. However, it furnishes an incubator in which reciprocity can grow; it provides the opportunity for mutual learning, testing, and adjustment by partners in the IFR (Heide and Miner, 1992). Essentially, it provides favorable attendant conditions for reciprocity to evolve in the IFR.

Other more subtle considerations also contribute to the potential effects of connectedness on reciprocity in IFRs. These effects relate to the value of actions in a relationship and the value of relationships (Ford and McDowell, 1999). The commitment of time, effort, and resources involved in the type of boundary spanning that comprises connectedness has value as a signal that the IFR itself is highly valued. We expect that such a high powered signal of value should set in motion a positive reciprocal pattern in the IFR.

When there is a high level of connectedness in boundary spanning, expansion of interdependence between partners in a relationship becomes more likely. As IFR partner interdependence grows, positive elements such as trust, commitment, and satisfaction also tend to develop in the relationship (e.g., Geyskens et al., 1996, Geyskens et al., 1999 and Kumar et al., 1995). These positive psychosocial elements are likely to generate or at least coexist with positive behaviors and behavioral norms such as reciprocity. Thus, we posit the following:

H4. The more that connectedness characterizes a firm's boundary spanning activities, the more the IFR will exhibit reciprocity.

2.2.5. Information exchange

Information exchange plays a critical role in IFR effectiveness for a number of reasons. Among the most important of these are uncertainty absorption and learning. A vast literature has established the central role of information in uncertainty and its reduction (e.g., Achrol and Stern, 1988). The more and better sources of information available to the firm, the less uncertainty it faces. Thus, if high quality information exchange characterizes an IFR, it can absorb uncertainty for the firm. Information processing theory provides yet another perspective. When boundary spanning structures are thick, interaction and communication is frequent and multiple levels

of management are involved in the interaction between the partner firms. This type of interaction can be considered as comprising rich information processing mechanisms Daft and Lengel, 1986 and Thomas and Trevino, 1993. These mechanisms between firms are seen as directly reducing problems such as equivocality in information (Thomas and Trevino, 1993). Such equivocality reduction suggests that information flows will be of high quality.

An additional consideration is communication content. Although frequent communication alone does not suggest that the communication content is substantive (i.e., that it involves meaningful information), strong healthy communication patterns certainly increase the probability that meaningful information will be exchanged in the relationship Larson, 1991 and Mohr and Sohi, 1995. Indeed, such communication patterns between firms have been conceptualized as including productive content (cf., Mohr et al., 1996). When these communication patterns expand to include multiple levels of managerial hierarchy as suggested in high levels of connectedness, the likelihood of substantive information passing between the IFR partners increases even more. For these reasons, we posit the following:

H5. The more that connectedness characterizes a firm's boundary spanning activities, the higher the quality of information exchange in the IFR.

2.2.6. Cooperation

Cooperation between IFR partner firms can enhance productivity and significantly increase joint and individual outcomes for the firms Anderson and Narus, 1990 and Dwyer et al., 1987. As with reciprocity and effective information exchange, boundary spanning that involves frequent interaction and crosses multiple managerial levels does not necessarily guarantee greater levels of cooperation. However, for several reasons, a high level of connectedness provides the opportunity and foundation for cooperative behavior. When a high level of connectedness characterizes the interface between IFR partners, they have the opportunity and ability to establish mutually congruent goals, which is an essential and cementing element of cooperation (Jap, 1999). In addition, thick boundary spanning provides a

process framework in which the IFR partners can figure and plan complementary actions. Because connectedness involves high quality communication, partners have the opportunity to tailor their coordination efforts to their individual needs and conditions. Connectedness allows for partner firms to effectively combine resources and capabilities.

Another important issue is that because of the investment of effort and resources involved in connectedness, greater levels of it signal that the relationship is valued and that the firm is committed to the IFR. Such signaling suggests that the relationship will endure and extend over time and should encourage cooperation (Heide and Miner, 1992). For these reasons, we expect high levels of connectedness to provide positive attendant conditions for cooperation.

H6. The more that connectedness characterizes a firm's boundary spanning activities, the more cooperation in the IFR.

3. Methods

3.1. Sample and data collection procedures

Data were collected in a mail survey of U.S. firms in several industries. Specifically, firms in SIC codes 28 (chemical and allied products), 30 (rubber and plastic products), 33 and 34 (metal fabrications and products), 35 (industrial machinery and equipment), 36 (electronic and electric equipment) and 37 (automotive and transportation equipment) comprised the sample. These industries were chosen because preliminary interviews suggested that the research topic was relevant and compelling for the incumbent firms. Further, interviews suggested that the construct variance would likely be sufficient for testing the posited relationships.

We procured a list of 925 firms from Dun and Bradstreet. The first step in data collection involved a rigorous prescreening by mail. The major focus of the prescreening was to isolate the appropriate key informant for our study. The prescreening included a battery of questions regarding the potential respondent's position, length of time in position, duties as a boundary spanner, amount of time spent interfacing with other firms,

and ability to report on the information required in our study (Campbell, 1955). This ensured us that the respondent was qualified to report on the firm's general behavioral tendencies and "attitudes" towards partnering and IFRs in general, as well as on specific relationships. The managers we isolated as appropriate key informants varied from firm to firm in their position and function. The vast majority held the title of vice president or director of operations, procurement, manufacturing, materials management, or supply processing, for example. To further ensure the validity of our data and ensure that we had isolated the correct key informant, we included validation items in the research instrument. We used these items to verify again that the executives who responded were fully qualified to provide the information we requested.

Of the 925 prescreening forms mailed, 781 were delivered and 329 returned. Based on the prescreening information, evaluation of the respondent as a qualified key informant resulted in the elimination of 10 responses. For the qualified informants, we mailed out the main data collection package that included a personalized cover letter, the questionnaire, and a self-addressed envelope for returning the completed questionnaire. The mailing of 319 and one follow-up generated 176 completed questionnaires. The response rate of 23% based on the original list and 55% of the prescreened potential respondents falls within rates accepted in the literature (Mishra et al., 1998). We evaluated nonresponse bias by comparing the respondents with the non-respondents on company sales volume, number of employees and industry classification (SIC) code. We also compared the early and late respondents on the model variables and classification data (Armstrong and Overton, 1977). The *t*-tests showed no significant differences, suggesting that response bias was not a significant problem in this study.

3.2. Questionnaire development and pretesting

Measures developed for this study were based on our conceptualizations, the academic literature, practitioner literature, and field interviews. Operational definitions derived from these sources provided the foundation for construct item pools. Preliminary item pools were re-

fined through numerous iterations of review by experts in the research area. After the peer review culminated in some satisfactory conclusion, we put the items into the research instrument form for another round of peer review with questionnaire format as the major focus.

We pretested the questionnaire through in-depth interviews with executives from a small number of firms. We interviewed respondents and discussed the goals and objectives of the study in general terms, after which they completed the questionnaire. We extensively debriefed the pretest subjects. This pretesting approach seemed appropriate for several reasons. First, past research experience suggested that the prescreening procedure we used would provide us with sufficient information about response rate and generate sufficient sample size for our study. Thus, pretesting to learn more about response rate was unnecessary. Second, given that a number of constructs in our study are new, we believed we could isolate problems in our measures and questionnaire format more effectively with an in-depth interviewing approach. The pretesting generated little change in the questionnaire. All respondents completed it in the expected amount of time, understood the tasks, the instructions, the items, and the language used. In addition, all felt that we were addressing relevant issues and that our operationalizations succeeded in tapping the constructs.

Because some of our measures focused on firm level behaviors and characteristics, while others focused on behaviors and characteristics specific to certain individual IFRs, we were concerned that the respondents changed focus appropriately when completing the questionnaire. To address this concern, we arranged items so that the firm level and IFR level reporting tasks were physically separated in the instrument. In addition, items intended to "force" the transition from firm level to IFR specific responses separated the sections. Importantly, the pretest ascertained that transitioning between the reporting tasks was not a problem.

3.3. Measures

We used multiple-item Likert scales to operationalize our constructs. Appendix A provides details of the

measures and scales used in the study. We assessed *strategic intent* with an eight-item scale that queried managers about their perceptions of the extent of the firm's strategic aggressiveness and focus in terms of winning, growth, leadership, and competitive dominance (Hamel and Prahalad, 1989). We operationalized *relational proclivity*, the general tendency to engage in close partner-style IFRs, with a nine-item scale. Three items were dropped during the measure purification process. The measure for *connectedness* consisted of eight items that captured the ease, amount, and extent of cross-managerial level interaction between firms Jaworski and Kohli, 1993, Maltz and Kohli, 1996 and Song and Parry, 1993. The *cooperation* measure consisted of four items gleaned from the literature (e.g., Anderson and Narus, 1990 and Morgan and Hunt, 1994). To assess the *quality of information exchange* we developed a nine-item measure based on the dimensions posited by Menon and Varadarajan (1992). A six-item scale based on the work of Goldner (1960) was used to operationalize *reciprocity*.

3.4. Control variables

Several studies have found that *relationship age* can be a potential source of variance that confounds research findings (e.g., Mohr et al., 1996). Thus, we included it as a control variable. In addition, research shows that the environment can influence IFRs (e.g., Noordewier et al., 1990). Although, we realize these effects can be important, the focus of our research question was to ascertain and depict the effects of firm dispositions on the IFR apart from *environmental turbulence*. Therefore, we also included environmental turbulence as a covariate, measuring it on a one (not turbulent) to seven (very turbulent) scale.² Size is another factor that can mask and confound research findings. However, in our treatment, we attempted to capture the effects of the "elephant and ant" syndrome (Cullen, 1999), focusing on asymmetries in size and the direction of the asymmetry. We included a *size asymmetry* variable that assessed whether the supplier was larger, the buyer was larger, or whether they were balanced. Then we included a

2. Extensive secondary data were gathered for each industry included in the study. The data were evaluated by a panel of MBA students and on that basis, the industries were rated for environmental turbulence. The rating process iterated until consensus was reached and the entire panel agreed on the rating.

Table 1. Summary statistics and correlation matrix

	Connectedness	Relational proclivity	Strategic intent	Reciprocity	Information flow	Cooperation	Environmental turbulence	Relationship length	Size asymmetry	Asymmetry direction
Connectedness	1.00									
Relational proclivity	0.43	1.00								
Strategic intent	0.47	0.44	1.00							
Reciprocity	0.36	0.30	0.25	1.00						
Information flow	0.34	0.29	0.25	0.57	1.00					
Cooperation	0.33	0.43	0.36	0.66	0.47	1.00				
Environmental turbulence	-0.07	0.01	0.02	-0.07	0.06	-0.06	1.00			
Relationship length	-0.03	-0.07	-0.03	0.05	0.07	0.07	-0.13	1.00		
Size asymmetry	-0.06	-0.01	-0.19	-0.03	-0.03	-0.09	0.06	0.10	1.00	
Asymmetry direction	0.11	0.14	0.09	0.14	0.03	0.19	0.06	-0.12	0.10	1.00
Number of items	6	6	8	6	9	3	1	1	1	1
Mean	32.47	32.74	39.57	31.13	46.59	16.29	2.85	13.23	1.52	0.23
Standard deviation	7.73	5.65	9.05	6.91	8.87	2.88	1.93	10.07	1.52	0.89

variable that measured the *magnitude of the size imbalance*, regardless of direction.

3.5. Measure validation

Our preliminary exploratory analyses revealed that some items for relational proclivity, connectedness, and cooperation measures were not consistent with the scales. After deletion of these items, we conducted a confirmatory factor analysis (CFA) to assess construct reliability and uni-dimensionality. Results indicated a statically significant χ^2 (705.43, $df=367$). However, the Comparative Fit Index (CFI)=0.95 and the Average Off-Diagonal Standardized Residual (AOSR)=0.07 indicated an acceptable level of the fit for the model. Standardized item loadings for all constructs were statistically significant (minimum t -value=4.43). The standardized loadings ranged between 0.40 and 0.93 and had a mean value of 0.75. The maximum inter-factor correlation (Φ) was 0.70 (between cooperation and reciprocity). The construct reliabilities ranged between 0.79 and 0.95 and the average variance extracted (AVE) for the measures ranged from 0.50 to 0.74 (see Appendix A), meeting standards accepted in the literature Bagozzi and Yi, 1988 and Nunnally and Bernstein, 1994.

Discriminant validity was evaluated through confirmatory factor analyses of construct pairs. For all pairs of multiple-item reflective measures, we compared an unconstrained CFA model with one where the factor correlation was fixed to unity (Bagozzi et al., 1991). In all cases, the unconstrained model provided a significantly superior fit, suggesting adequate discriminant validity between the measures Anderson and Gerbing, 1982 and Steenkamp and van Trijp, 1991. Further, all the AVEs were greater than the Φ s (Fornell and Larcker, 1981).

Our understanding and conceptualization of the information flows effectiveness construct dictated that we use a formative measure to assess it. Thus, the precision and thoroughness with which the construct domain is established and tapped (content validity) provide the major validation tool Bollen and Lennox, 1991 and Howell, 1987. Our detailed efforts in the preliminary stages of the research, interviews and pretesting, along with a

visual inspection of the items included in the measure (Appendix A), provide evidence of content validity. Evidence provided in the above analyses suggests that the measures included in this study possess sufficient reliability and validity to proceed with hypotheses testing. For hypotheses testing analysis, we developed summated composites. Table 1 shows the zero order correlations along with means and standard deviations.

4. Analysis and results

We tested our hypotheses using OLS regression with a product term included to test the conditional hypothesis. To check for multicollinearity, we examined the bivariate correlations, variance inflation factors (VIF), and the condition numbers suggested by Mason and Perreault (1991). Typically, correlations higher than 0.80, VIFs over 10, and condition numbers over 30 indicate severe multicollinearity problems Belsley et al., 1980 and Mason and Perreault, 1991. For our regression equations, the highest VIF value was 1.25, and the highest condition number was 16.22. All bivariate correlations were less than 0.80. Together these numbers suggest that multicollinearity was not a problem. Hypotheses testing involved estimation of the following equations:

$$\begin{aligned} \text{CONNECT} = & \\ & a_0 + b_1 \text{ENVIR} + b_2 \text{RELEN} \\ & + b_3 \text{SIZEMAG} + b_4 \text{SIZEDIR} \\ & + b_5 \text{STRATINTENT} + b_6 \text{RELPROC} \\ & + b_7 \text{STRATINTENT} \times \text{RELPROC} + e \end{aligned} \quad (1)$$

$$\begin{aligned} \text{RECIP} = & \\ & a_0 + b_1 \text{ENVIR} + b_2 \text{RELEN} + b_3 \text{SIZEMAG} \\ & + b_4 \text{SIZEDIR} + b_5 \text{CONNECT} + e \end{aligned} \quad (2)$$

$$\begin{aligned} \text{INFOFLOW} = & \\ & a_0 + b_1 \text{ENVIR} + b_2 \text{RELEN} + b_3 \text{SIZEMAG} \\ & + b_4 \text{SIZEDIR} + b_5 \text{CONNECT} + e \end{aligned} \quad (3)$$

$$\begin{aligned} \text{COOP} = & \\ & a_0 + b_1 \text{ENVIR} + b_2 \text{RELEN} + b_3 \text{SIZEMAG} \\ & + b_4 \text{SIZEDIR} + b_5 \text{CONNECT} + e \end{aligned} \quad (4)$$

where CONNECT = connectedness, ENVIR = environmental turbulence, RELEN = relationship length, SIZEMAG = the magnitude of the size difference between buyer and seller, SIZEDIR = whether it is the

buyer or the seller that is larger, STRATINTENT = strategic intent, RELPROC = relational proclivity, RECIP = reciprocity, INFOFLOW = information flow, and COOP = cooperation.

Table 2. OLS regression estimates for hypotheses testing

Endogenous variables	Exogenous variables	Hypothesis	Standardized parameter estimates	t-Value	Model R ²
Connectedness	<i>Control variables</i>				
	Environmental turbulence		-0.10	-1.43	
	Relationship length		-0.01	-0.07	
	Size asymmetry magnitude		0.00	0.03	
	Size asymmetry direction		0.04	0.60	
	<i>Predictor variables</i>				
	Strategic intent	H1	0.35	4.61***	
	Relational proclivity	H2	0.27	3.64***	
Reciprocity	<i>Interactions</i>				
	Strategic intent×Relational proclivity	H3	0.08	1.20	0.30 $F_{(7,159\ df)}=9.74$
	<i>Control variables</i>				
	Environmental turbulence		-0.04	-0.53	
	Relationship length		0.08	1.09	
	Size asymmetry magnitude		-0.03	-0.39	
	Size asymmetry direction		0.12	1.62	
	<i>Predictor variable</i>				
	Connectedness	H4	0.35	4.71***	0.15 $F_{(5,161\ df)}=5.71$
Information flow	<i>Control variables</i>				
	Environmental turbulence		0.10	1.35	
	Relationship length		0.10	1.27	
	Size asymmetry magnitude		-0.02	-0.28	
	Size asymmetry direction		0.00	0.02	
	<i>Predictor variable</i>				
	Connectedness	H5	0.35	4.69***	0.13 $F_{(5,161\ df)}=4.89$
Cooperation	<i>Control variables</i>				
	Environmental turbulence		-0.02	-0.32	
	Relationship length		0.11	1.43	
	Size asymmetry magnitude		-0.10	-1.33	
	Size asymmetry direction		0.18	2.41**	
	<i>Predictor variable</i>				
	Connectedness	H6	0.32	4.31***	0.16 $F_{(5,161\ df)}=6.05$

*** $p < 0.001$ (one-tailed tests).

** $p < 0.01$ (one-tailed tests).

4.1. Hypothesis testing

Table 2 shows the results of the OLS path analysis. Hypothesis 1 states that strong strategic intent on the part of the firm results in more connectedness in the firm's boundary spanning. With a statistically significant standardized parameter estimate of 0.35 ($t = 4.61$, $p < 0.001$), the results support H1. In the second hypotheses, we posited that greater relational proclivity on the part of a firm would result in greater connectedness in its interactions in IFRs. The results indicate support for that hypothesis. The standardized parameter estimate of 0.27 was statistically significant ($t = 3.64$, $p < 0.001$). For Hypothesis 3, we posited that strong relational proclivity would couple with strong strategic intent to result in even greater connectedness between IFR partner firms than with the two predispositions individually. The standardized parameter estimate of the product term was 0.08 and was not statistically significant ($t = 1.20$, $p > 0.05$), indicating no support for H3.

H4, H5 and H6 addressed the effects of connectedness on IFR effectiveness. We expected that greater connectedness, i.e., thicker interfirm boundary spanning structures, would result in more reciprocity in the IFR (H4), more effective information flows (H5), and greater interfirm cooperation (H6). As the lower sections in Table 2 show, H4, H5 and H6 were supported. Connectedness had a significant positive association with reciprocity (standardized parameter estimate=0.35, $t = 4.71$, $p < 0.001$), effectiveness of information flow (standardized parameter estimate=0.35,

$t = 4.69$, $p < 0.001$) and cooperation (standardized parameter estimate=0.32, $t = 4.31$, $p < 0.001$).

4.2. Tests for the mediating effects of connectedness

We employed the product of coefficients method Baron and Kenny, 1986 and Sobel, 1982 to determine the mediating effects of connectedness. Using the standardized regression coefficients from Table 2, we computed the magnitude of the indirect effects of the exogenous variables (relational proclivity, strategic intent) on the endogenous variables (reciprocity, information flow, cooperation) through the mediating variable (connectedness). We used the regression coefficients in Table 2 because they take into account the effects of the covariates and interaction term, and therefore, provide truer estimates for the mediating effect. As may be seen in Table 3, all the indirect path effects are highly significant indicating that connectedness mediates the relationship between the endogenous and exogenous variables.

5. Discussion and implications

The central proposition guiding this research was that firms possess traits or characteristics, referred to in this paper as predispositions, which result in relatively stable tendencies to behave in a certain way across a variety of conditions. We argue that predispositions influence the activities and behaviors of the firm in the making and management of its IFRs. We explored our central prop-

Table 3. Tests for mediating effects based on product of coefficients method

Exogenous variable X	Mediator variable M	Endogenous variable Y	Path coefficient ^a $X \rightarrow M, a$	Path coefficient $M \rightarrow Y, b$	$a * b$	Significance ^b of $a * b$ (z value)
Relational proclivity	Connectedness	Reciprocity		0.27	0.35	0.0952.34
		Information flow	0.27	0.35	0.095	2.17
		Cooperation	0.27	0.32	0.086	2.61
Strategic intent	Connectedness	Reciprocity		0.35	0.35	0.1233.50
		Information flow	0.35	0.35	0.123	3.03
		Cooperation	0.35	0.32	0.112	4.51

a. Path coefficients are the standardized regression estimates from Table 2.

b. The significance test is based on the formula provided by Baron and Kenny (1986).

osition by investigating the role of two predispositions, strategic intent or aggressiveness and relational proclivity, which theory and literature suggested would be relevant in the context of IFR management. We tested the effects of the predispositions on the extent of connectedness i.e., the thickness of boundary spanning, generally exhibited in the firm's interface with other firms. Further, implying a mediating role for connectedness, we tested the effects of predispositions on specific outcomes in an individual IFR. Through connectedness, we expected that the predispositions would influence indirectly the firm's behavior in and management of specific individual IFRs.

Generally, our expectations regarding the role of predispositions were supported. Our data show that when firms are strategically aggressive, they tended to engage more intensely with partners, building a thicker connection at the interface in terms of multiple managers at multiple levels in the firm interacting through multiple means in substantive high quality ways. These strategically aggressive firms may see strong connections in IFRs as a means for tapping into the expanded resource base offered by IFR partner firms. Or they may be attempting to build inimitability into what they see as a valuable strategic asset. In addition, our data show that firms vary in their proclivity for close partner-style relationships. The tendency to trust IFR partners, the preference for and comfort with close IFRs resulted in interactions characterized by greater levels of connectedness.

Additionally, we expected that the predispositions would combine and result in stronger effects on connectedness. For the predispositions of strategic intent and relational proclivity, our data suggest that this is not the case. Combining strategic intent with relational proclivity resulted in no greater levels of connectedness than the presence of them individually. We conjecture, however, that this result does not necessarily suggest that other firm predispositions and perhaps other contexts would not generate some combined effects. Our evidence regarding a general proposition of combined predispositional effects is inconclusive. This is one of the questions that should be explored further in future studies in addition to those discussed below.

In our study, we expected that the indirect effects of predispositions on outcomes would be important, rip-

pling through the IFR in terms of behaviors and activities that reflect individual relationship effectiveness. Specifically, we were concerned with the influence of firm level predispositions through connectedness on cooperation, reciprocity, and information exchange in individual IFRs. As expected, our data indicated that greater connectedness between the partner firms, enhanced individual IFR outcomes in terms of productive activities and behavioral patterns.

While our investigations confirmed that connectedness played a significant mediating role in the influence of predispositions on outcomes, our results also indicated that there are direct effects. These effects, illustrated by the dotted lines in Fig. 1, suggest that above and beyond their influence through connectedness, higher levels of these predispositions resulted in more productive IFRs as we conceptualized it. This implies that beyond the signaling and communications-related factors we addressed in the concept of connectedness, when firms are predisposed in certain ways (i.e., have a relational proclivity and are strategically ambitious), they act directly on those predispositions in their behaviors in IFRs. These firms apparently create and activate patterns of reciprocity, information flows, and cooperation directly in their IFR activities.

In addition to introducing the notion of predispositional influences on IFRs, this study offers a conceptualization and measure of the firm's strategic ambition or aggressiveness in terms of the firm's strategic intent. In a tangential way, this issue has been treated in the literature through the Miles and Snow (1978) typology (e.g., McKee et al., 1989). However, the multiple dimensions that underpin the Miles and Snow typology introduce ambiguity and confusion in measurement and in sorting out research results. For example, it is difficult to attribute findings to innovativeness, versus flexibility, versus growth or market dominance. As conceptualized here, strategic intent involves a more precisely delimited construct domain that may facilitate interpretation of results in future studies.

As with all research, this study also has limitations. First and foremost, we did not intend this study to include an exhaustive treatment of predispositions. We searched the literature and sifted out several that seemed compelling as a starting point for exploring the general

notion of predispositional influences on IFRs. There are a number of others that may come into play. For example, Dutta and Weiss (1997) find that technological innovativeness relates to the use of more of certain types of interfirm arrangements. Though Dutta and Weiss (1997) did not address it, innovativeness may play a role in the way firms behave in and manage individual IFRs. As another example, firms likely vary on their preferences, i.e., predispositions for risk (e.g., Sitkin and Weingert, 1995). Risk preferences may influence whether or not firms engage in close partner-style relationships at all. Risk preferences could greatly influence how many and which IFRs the firm selects to cultivate into partnerships. In addition, firm level risk preferences may work in combination with other predispositions such as those studied here.

In this study, we conceptualized relational proclivity as a predisposition toward close partner-style IFRs. In contrast, firms could have a tendency and preference for arm's-length or transaction based interfirm exchange. Despite its attractions in certain contexts, relational exchange in between firms is not always the preferred way to do business. Future research should include investigations of predispositions toward transaction-based exchange to augment what has been learned in this study. We have investigated several predispositions that the literature suggested would be important, and we have noted several others that also may be important, no doubt still others will emerge. Researchers should explore the individual and combined effects of these predispositions and continue to isolate and explore new ones.

Beyond this, other limitations exist. For example, our study does not consider information on growth or financial performance for both the IFR and the firm. Including such "hard" performance data would provide a stronger picture of predispositional influences. Future research should attempt to treat financial performance and growth. Also in this research, we attempted to emphasize dependent constructs related to actions, behaviors, or activities in the IFR. We did not include constructs that would be considered more as affective states or conditions in the relationship, such as trust or commitment. Given that the literature has shown such factors to be important in IFRs, interesting future research questions might involve explorations of how predispo-

sitions influence the development of trust and commitment, for example.

Other limitations involve our treatment of the predispositions. This investigation involves information from one side of the dyad in the buyer-seller IFR. While predispositions necessarily involve one firm, a richer picture of their effects might be developed with multiple perspectives on dependent constructs such as connectiveness. Likewise, tracking the effects of firm predispositions on the evolution of an IFR over time may provide a deeper and richer understanding. In addition, our study involves the relationship with the supplier from the customer perspective. Influences of firm level predispositions on IFRs may play out differently depending on whether the IFR is upstream or downstream. For example, relational proclivity may behave differently and influence supplier relationships differently than customer relationships.

Finally, though not necessarily a limitation, another question derives from this work. Theory suggests that while predispositions influence IFRs, external constituencies such as IFR partners in turn also influence firm predispositions. Investigations of IFR influences on firm predispositions, though intriguing and potentially very useful, may be a difficult research proposition. A relatively long-term longitudinal investigation would be required and perhaps ethnographic or case studies may be necessary because theory suggests that changes in firm predispositions would likely be quite slow.

For managers, this research has several important implications involving the compatibility of predispositions between IFR partner firms. First, for managers, the existence and effects of predispositions reifies the importance of appropriate identification and selection of IFR partners (Dwyer et al., 1987). Our study provides fairly compelling evidence that some significant attention to partner predispositions in initiating IFRs is warranted. The productivity and effectiveness of the IFR can be enhanced and problems can be avoided or better managed in the IFR as it evolves if the potential partner's predispositions are considered in conjunction with the firm's own.

Second, in situations where IFR partner choice is limited and existing IFRs are necessary but problematic, managers may be able to work to mold or reform partner predispositions so that they are more compat-

ible and positive influences in the relationship. As we noted, change in predispositions is likely a gradual and long-term proposition, thus requiring a significant commitment by the firm. Yet, if the potential benefit of the IFR were great enough and the relationship itself long-term enough that attempting to remold partner predispositions would be viable, the eventual rewards of such an endeavor could be substantial.

Third, as an alternative to changing partner predispositions, simply understanding them may be just as important. In instances when a suboptimal IFR is a matter of necessity, understanding predispositions can help anticipate difficulties and diffuse problems. For example, attention to predispositional influences on the IFR may help determine the tolerance for dependence and control, and the appropriateness of governance alternatives. Understanding predispositions may help ascertain the extent to which relationships could or should be cultivated into close partner-style relationships. It may help managers decide on the extent to which resources should be committed to a given IFR. In addition, understanding predispositions can facilitate effective conflict management, and promote productive relationship dynamics.

Firm predispositions affect firm behavior in many arenas other than IFR making and management. Researchers have just begun to explore these possibilities (e.g., Gatignon and Xuereb, 1997). Many questions still remain. For example, how do predispositions influence things such as the firm's competitive responses, market development strategies, use and allocation of marketing resources or promotional strategies? In general, the notion of predispositional influences offers an intriguing and potentially productive research avenue.

Appendix A. Measures

A.1. Relational proclivity

In general, in my firm the view is that...

1. closer partner-type relationships with suppliers offer a major advantage in doing business.
2. teaming up and working closely with suppliers allows us to be more effective.

3. it is appropriate to share proprietary information with our suppliers if it is useful to do so.
4. most often, suppliers can be trusted to meet their obligations.
5. most of the time, suppliers will not take advantage of us.
6. *forming close partner-style relationships with suppliers is inadvisable (reverse).
7. *we have to be cautious in dealing with any supplier (reverse).
8. the less any supplier knows about how we do things, the better off we are (reverse).
9. *we should not involve any supplier too closely in our projects (reverse).

Scale anchors: 1 = strongly disagree; 7 = strongly agree; Construct reliability 0.85; Average Variance Extracted (AVE) 0.50.

A.2. Strategic intent

To what extent do you consider that your firm...

1. is strategically aggressive?
2. seeks competitive dominance?
3. systematically builds competitive advantage?
4. seeks market leadership?
5. focuses on strategic targets and goals?
6. reconfigures resources into new competitive advantage?
7. focuses attention of winning in the market place?
8. sets targets for everyone's commitment and effort?

Scale anchors: 1 = not at all; 7 = very large extent; Construct reliability 0.93; AVE 0.63.

A.3. Connectedness

1. It is easy for our suppliers to meet with people in our firm regardless of rank or position.
2. When the need arises, a supplier can talk to anybody in our firm without formal channels.
3. There is an opportunity for informal communication between our supplier's people and people from our firm.
4. People in our firm are accessible to our supplier.

5. *Our suppliers often contact upper level managers in our firm.
6. We have systems and procedures to promote interaction with suppliers.
7. Through training program and other get-togethers, we provide opportunities for suppliers to understand our firm.
8. *We keep our suppliers informed about what is going on in our firm.

Scale anchors: 1 = strongly disagree; 7 = strongly agree; Construct reliability 0.78; AVE 0.50.

A.4. Reciprocity

1. We are always willing to do this supplier a favor because we know it will be returned.
2. This supplier is always willing to do us a favor because they know that it will be returned.
3. This supplier always helps and supports us and we do likewise.
4. In this relationship, both partners feel that one good turn deserves another.
5. This supplier makes sure that they do their part because they realize we will do ours.
6. We feel obliged to do our part extremely well in this relationship because this supplier has done their part so well.

Scale anchors: 1 = strongly disagree; 7 = strongly agree; Construct reliability 0.94; AVE 0.74.

A.5. Information flows

The extent to which information flow in the IFR is sufficient/insufficient in the following terms:

1. accuracy.
2. amount.
3. reliability.
4. usefulness.
5. consistency.
6. timeliness.
7. importance.
8. relevance.
9. value.

Scale anchors: 1 = completely insufficient; 7 = exceeds our needs.

A.6. Cooperation

1. We try to cooperate with this supplier in whatever ways we can.
2. When any problem arises with this supplier, we try to work it out together.
3. We often plan joint programs, projects, or activities together with this supplier.
4. *We never collaborate with this supplier on any joint activities (reverse).

Scale anchors: 1 = strongly disagree; 7 = strongly agree; Construct reliability 0.79; AVE 0.58.

A.7. Control variables

- Relationship length: Number of years doing business with this supplier.
- Size asymmetry direction: Whether respondents' firm is larger, supplier firm is larger, or both are similar.
- Size asymmetry magnitude: Respondents indicated how many times larger own/supplier firm was.
- Environmental turbulence: Based on secondary industry data, responding firms were rated by independent judges on a one (not turbulent) to seven (very turbulent) scale.

Asterisk (*) indicates that the item was deleted in scale purification.

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